TAS Lesson Plan

ACTIVITY: Looking for a job in the marine sciences

SUBJECT (FOCUS/TOPIC) Using internet resources to research requirements, training and job opportunities in the marine sciences.

GRADE LEVEL 10-12

AVERAGE LEARNING TIME: two, 45 minute periods

LESSON SUMMARY (OVERVIEW/PURPOSE): Students will use internet resources to search for a job in the marine sciences and create a brochure with pertinent information about the career. This activity can be modified for job searches in any profession. This activity will provide practice for skills needed for a true job search.

OVERALL CONCEPT (BIG IDEA/ESSENTIAL QUESTION): Students will learn how to use on-line resources to find information about a career. Information such as, but not limited to: education needed, salary, and job description will be collected and organized into a brochure.

SPECIFIC CONCEPTS (KEY CONCEPTS) Identify career options in the marine sciences. Use internet search engines appropriately. Create a brochure with a computer program. Locate essential and appropriate information about a career in marine sciences.

FOCUS QUESTIONS

1. What KEY words would be used in a search of careers in the marine sciences?

2. How does one use the advanced search option in Google?

3. How is an information search narrowed?

4. List a career name and its synonyms.

5. What education is needed for a particular career in marine science?

6. Where can this education be acquired?

7. What is the salary range for your chosen career?

8. What is the employment outlook for this career?

9. Where are likely locations for employment in your chosen field?

10. How can appropriate internet links be placed in the brochure?

OBJECTIVES/LEARNING GOALS: After selecting a career in the marine sciences the student will use internet search engine properly to locate information about education needed, salary, and job

description will be collected and organized into a brochure. A rubric (attached as a separate sheet at the end) will be given to the student prior to starting the activity to allow them to see what the requirements are to achieve a specific grade.

COMMON MISCONCEPTIONS/PERCONCEPTIONS There is only one way to use a search engine to look for information. I'm too young to be looking for a job.

MATERIALS: Computers with internet access. Microsoft Publisher Program (or similar) for creating a brochure. Printer (preferably color). Access to www.youtube.com

TECHNICAL REQUIREMENTS: same as above

TEACHER PREPARATION: Familiarize oneself with careers in the marine sciences. Practice the search for information that the students are expected to do. Practice making a brochure with a computer program. Reserve computer lab time if necessary.

KEYWORDS: ocean, sailing, ships, boats, captain, navy, seas, Great Lakes, sailor, mechanic, marine, marine science, oceanography, marine biology, research, biology, college, requirements, training, oceanology, Ocean

Places Monterey Bay Aquarium, Woods Hole Oceanographic Institute

People: Robert Ballard, Jacques Cousteau,

PRE-ASSESSMENT STRATEGY/ANTICIPATORY SET (OPTIONAL) N/A

LESSON PROCEDURE: Part 1: Brain storming with students to develop a word bank that will aid in searching for jobs in the marine sciences. Part 2 Key words will be used in a search engine of the student's choice to look for jobs in the marine sciences. Part 3 Once a job is located the search will continue for an institute that can provide training for that job. Part 4 The student will create a brochure that contains the following information: job title, salary range, training or degree required, institutes that can provide the training , internet links to pertinent information, internet link to video clip (eg. www.youtube.com) related to the profession

ASSESSMENT AND EVALUATION: Create a brochure for a job in the marine sciences. The evaluation rubric for the brochure is separate sheet at the end.

NATIONAL SCIENCE EDUCATION STANDARD(S) ADDRESSED:

Science Inquiry

Abilities necessary to do scientific inquiry K-12

Understanding about scientific inquiry

Unifying concepts and processes

Systems, Order and Organization

Evidence, Models and Investigation

Change, Constancy, and Measurement

Personal and Social Perspectives

Add standard subcategories here

OCEAN LITERACY PRINCIPLES ADDRESSED:

6. The oceans and humans are inextricably interconnected

7. The ocean is largely unexplored

STATE (OHIO) SCIENCE STANDARDS ADDRESSED:

Grade 9-11

Scientific Ways of Knowing

Science and Society

Investigate how the knowledge, skills and interests learned in science classes apply to the careers students plan to pursue.

ADDITIONAL RESOURCES:

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Web sites

Marine Science Careers
www.**marinecareers**.net/ - Cached

A comprehensive overview of **careers in marine biology** and the other marine sciences prepared as part of the Sea Grant program of Woods Hole Oceanographic **...**

http://www.marinecareers.net/   Sea Grant Marine Careers web site. Also contains a 39 page pdf of interviews with professionals

OceanLink | **Careers in Marine Science**
oceanlink.island.net/**career**/**career**2.html - Cached

Answers to OceanLink questions on **Careers in Marine Biology** Profiles of Marine Scientists A question about the role of a marine biologist in society **...**
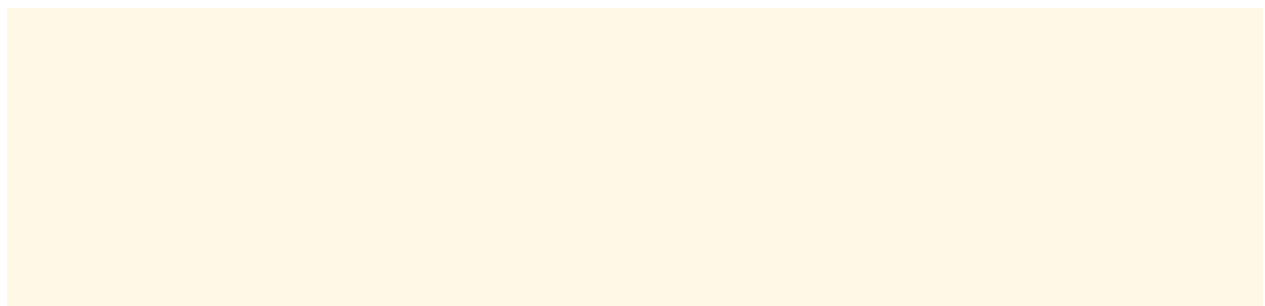
http://oceanlink.island.net/career/career2.html All about the ocean is their tag line. Careers in Marine Sciences is this page.

Career Information - Hopkins **Marine** Station
www-**marine**.stanford.edu/**careers**.htm - Cached- Block all www-marine.stanford.edu results

Career Information: The following web pages provide advice for those interested in a career in the marine or aquatic sciences: **Careers in Marine Biology ...**

http://www-marine.stanford.edu/careers.htm

[Browse Careers at **OceanCareers**.com](http://www.oceancareers.com/)
www.**oceancareers**.com/ - Cached- Block all www.oceancareers.com results

Explore over fifty **ocean**-related **careers** · Find a college, university or training center that specializes in **ocean**-related education **...**

Ocean-related careers Professional Societies

Jobs and Internships   Ocean-related links from

Program Start Page

http://www.oceancareers.com/2.0/index.php

[**Careers** in Oceanography, Marine Science & Marine Biology](http://ocean.peterbrueggeman.com/career.html)
ocean.peterbrueggeman.com/**career**.html - Cached- Block all ocean.peterbrueggeman.com results

General **career** guides for oceanography and marine scientists including guides for marine biology, marine mammal work, zoos and aquariums.

http://ocean.peterbrueggeman.com/career.html

[**Marine Mechanic** Schools, Salaries, and Job Data](http://www.job-hunt.org/careers/marine-mechanics.shtml)
www.job-hunt.org/careers/**marine-mechanics**.shtml - Cached- Block all www.job-hunt.org results

Not helpful? You can block **www.job-hunt.org** results when you're signed in to search.

Marine Mechanic career information, including salary data, job descriptions, job growth statistics, and relevant school

http://www.job-hunt.org/careers/marine-mechanics.shtml

RUBRIC FOR EVALUATION OF CAREER BROCHURE

Activity is worth 44 pts. (approximately 450 pts. in a quarter) 3 pt. bonus to link to media about the career. (video, pod cast etc.)

20 points will be earned for cooperation and progress on the project in the computer lab.

24 points will be earned on the brochure using this rubric.

POINTS	1	2	3	4
Brochure appearance	B/W One sheet, single side printing	B/W Two sheets with printing on each	Color, Two sheets with printing on each	Color, single sheet with dbl. sided print
Images	No images	Image out of focus or no caption	Clear image and caption	More than one clear image with caption
Content from section C below	1 item	2 items	3 items	All 4 items
Content from section D below	1 item	2 items	3 items	All 4 items
Imbedded links	1-2	3-4	5-6	7
Biographical and production information (create a company name and web address)	Name	Name, Class and period	Name, Class and period, Name of production company	Name, Class and period Name of production company, web address

Section C content: education level needed, education source, cost of education, what are the career advancement possibilities

Section D content: Name of career and synonyms, salary range, job outlook, locations for employment